

Lipid, sterol and ergosterol accumulation in isolates of dematiaceous Hyphomycetes

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Mycelial dry weight, lipid and sterol contents of fungi tested varied with fungal genus, species and even with isolate of one species. Their dry mass fluctuated between 111.6 ± 10.7 – 457.0 ± 41.5 mg/50 ml medium. Lipids, sterols and ergosterol accumulated by the isolates tested ranged from 4.52 ± 0.5 – $29.04 \pm 2.76\%$, 1.23 ± 0.16 – $10.63 \pm 1.24\%$ and 0.43 ± 0.057 – $7.13 \pm 0.695\%$ of their dry mass, respectively. *Cochliobolus spicifer* isolate No. 35 was the highest lipid-producer while *Ulocladium atrum* No. 90 proved to be superior in the production of sterols and ergosterol. TLC technique and chemical analysis of lipid classes produced by *U. atrum* No. 90 revealed that the lipid fractions are composed of free sterols, free fatty acids, sterol esters, glycolipids, phospholipids and squalene.

Key words: Lipid, sterol, ergosterol, dematiaceous hyphomycetes

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Sušina mycelia, obsah lipidů a sterolů kolísá v rámci různých rodů hub, mezi druhy i mezi izoláty jednoho druhu. *Cochliobolus spicifer* isolát č. 35 byl nejvyšším producentem lipidů a druh *Ulocladium atrum* isolát č. 90 produkoval nejvíce steroly a ergosterol.